## CLAIMS

1. A method for obtaining automatic alignment of interlaced images to a lenticular sheet and adaptation between the pitch distance thereof, comprising:

a) Obtaining an interlaced file that includes digital data corresponding to linear frames of at least two different images, said digital data comprising linear orientation and pitch distance data;

b) Providing a lenticular sheet, on the flat face of which said at least two different images are intended to be printed, and obtaining linear orientation and pitch distance thereof;

c) Modifying the digital data of the interlaced file so that the orientation and pitch distance of said linear frames match the orientation and pitch distance of said lenticular sheet; and

d) Printing the modified digital data on said lenticular sheet.

2. A method according to claim 1, wherein the linear orientation and pitch distance data is taken relative to a reference position on the lenticular sheet.

3. A method according to claim 1, wherein the modifications are made on a digital file that is a copy of the interlaced file, for allowing further utilization of the original interlaced file for additional prints, by avoiding corruption of the original interlaced file.

4. A method according to claim 1, wherein obtaining the linear orientation and pitch distance of the lenticular sheet is implemented by utilization of:
(i) guiding line(s) and/or reference mark(s), being part of said lenticular sheet or printed on the flat side of said lenticular sheet; and
(ii) an optical system, capable of moving in line(s) that is/are essentially perpendicular to the lenticules of said lenticular sheet, and sensing the

relative location of said guiding lines and/or reference marks by scanning said lenticular sheet and deriving said linear orientation and said pitch distance via the scanning results.

5. A method according to claim 4, wherein the guiding lines, or reference marks, are the first and the last lenticules of the lenticular sheet and the optical system and lenticular sheet are moved relative to one another for obtaining the "X" and "Y" coordinates of three or more key points, at least two key points residing on said first, or last, lenticule and the other key point(s) on said last, or first, lenticule, by moving a light source over the first and last lenticules, and sensing the difference in the intensity of the light reflected from the vicinity of said first and last lenticules, and the obtained "X" and "Y" coordinates of said key points being used to calculate the linear orientation and pitch distance of said lenticular sheet.

6. A method according to claim 4, wherein part or all of the lenticules of the lenticular sheet are used as guiding lines, or reference marks, to allow the counting of the lenticules as well as measuring the width of said lenticular sheet, by moving a corresponding light source over the lenticules, emitting light towards the lenticules and sensing reflected light having different intensities at different locations as a result of reflections from different portions/areas of the lenticules, thereby calculating an average pitch distance of said lenticules, by dividing the overall width of said lenticular sheet by the number of said lenticules.

7. A method according to claim 4, wherein the lenticular sheet contains areas not occupied by lenticules, and wherein the guiding lines, or reference marks, are said areas.

8. A method according to claim 4, wherein the guiding lines/reference marks are paint marks with distinguishable color(s) applied to preselected portion(s)/area(s) of the lenticular sheet.

9. A method according to claim 4, wherein the guiding lines/reference marks are lenticules that are characterized by having a higher profile and/or larger width with respect to the other lenticules of the lenticular sheet.

10. A method according to claim 4, wherein the location/position of the lenticular sheet with respect to the printer, and the width of said lenticular sheet is obtained automatically prior to the printing of the interlaced images, comprising:

a) advancing said lenticular sheet to a first measuring position;
b) moving the scanning head of the optical system across the guiding line(s), for obtaining key points that are part of said guiding lines;
c) storing said key points;
d) advancing said lenticular sheet to a second measuring position and repeating steps b) and c); and
e) obtaining the location/position and the width of said lenticular sheet by utilizing the stored key points.

11. A printing system in which alignment of interlaced images to a lenticular sheet and adaptation between the pitch distance thereof are obtained automatically, comprising:

a) A printing means, for accepting a lenticular sheet that includes guiding line(s) and/or reference mark(s) as part of said lenticular sheet or printed on the flat side of said lenticular sheet, and for printing the interlaced images on said lenticular sheet;

b) An optical scanner, capable of relative movement with respect to said lenticular sheet, and of scanning the lenticules of said lenticular sheet and

of sensing light reflected therefrom, thereby obtaining the 'X/Y' coordinates of key points residing on guiding lines, or reference marks, that are part of said lenticular sheet;

c) A computerized system, which includes a software for:

(c.1) generating a file that is a copy of the original interlaced file;

(c.2) calculating the alignment deviation of said lenticular sheet from a known reference location/position and the pitch distance of the lenticular sheet, by utilizing said key points;

(c.3) modifying the data residing within the copy of the original interlaced file in accordance with the calculated alignment deviation and in accordance with the calculated pitch distance deviation; and

(c.4) printing the modified interlaced file.

12. A printing system according to claim 11, in which the computerized system is embedded, coupled to, incorporated or integrated into the printing means.

13. A printing system according to claim 11, in which the computerized system is a "stand-alone" system, which is external to the printing means and functionally connected thereto.

14. A printing system according to claim 11, in which the computerized system is capable of importing the original interlaced file to the printer.

15. A printing system according to claim 11, in which the computerized system is capable of generating the original interlaced file.

16. A printing system according to claim 11, in which the optical scanner is stationary with respect to the lenticular sheet, said optical scanner including a matrix of light sources and a matrix of light sensors, the operation of which replaces the relative movement between said optical

scanner and said lenticular sheet, said light sources emitting light in synchronization with respect to one another, for emitting a single beam that moves over several of the lenticules of the lenticular sheet, said moving beam causing corresponding reflection of light from the lenticules of lenticular sheet, which is sensed by said matrix of light sensors, thereby obtaining the key points.

17. A printing system according to claim 11, in which the optical system is originally embedded, coupled to, incorporated or integrated into the printing means, or is an 'add-on' device.